



Columbia Smelting & Refining Works Site Status and Cleanup Plans

April 30, 2018 Public Information Session

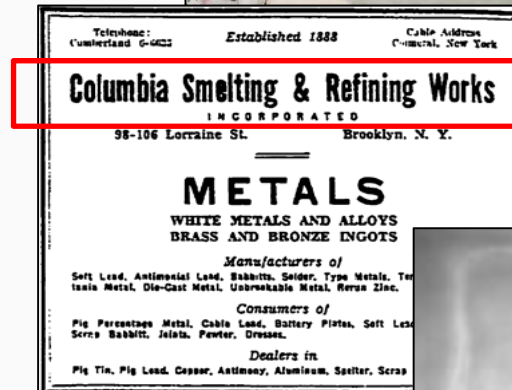
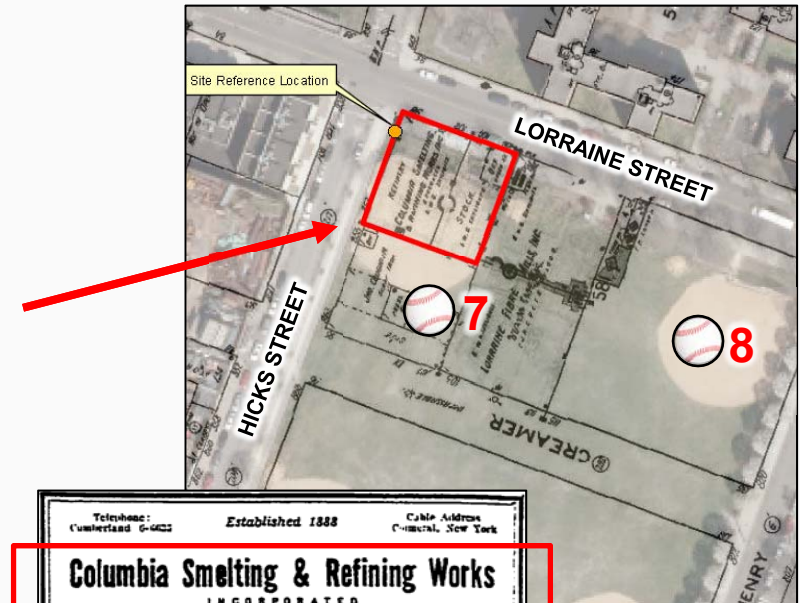
Margaret Gregor, US EPA



1938

Refresher on Site History/Background

- Late 1920s-late 1930s: Columbia lead facility
 - Lead dust, fumes and waste released into air & soil
- Lead stays in soil; exposure can occur from:
 - Touching lead-contaminated soil, then accidentally ingesting it
 - Kids putting dirty hands & objects in their mouths
- Children - especially under age 6 - are most sensitive to the health effects; NYC Health can answer questions



1931

2014: New York State DEC referred this site to EPA with almost 40 others



Typical secondary smelter.
(Source: USA Today)

2014-2016 Soil Investigation



LEGEND

-  Approximate Footprint of Former Smelter
-  Red Hook Recreation Area Border
-  EPA October 2014 Sample Location
-  EPA March 2015 Sample Location
-  EPA April 2015 Sample Location



88 locations, upper two feet of soil (five samples per location, 460 samples)



EPA Soil Investigation Results

Average Lead Levels per Area (parts per million)

DEPTH		BALL FIELDS 5-8	BALL FIELD 9	SOCCER FIELD 2	AROUND SOCCER 1	SOCCER FIELD 6
SURFACE ↓ 2' DEEP	0-1"	1,580	140	285	474	254
	1-6"	2,240	179	508	587	367
	6-12"	2,590	698	618	496	535
	12-18"	2,847	1,209	875	389	387
	18-24"	3,795	1,222	1,431	781	467

400 ppm = EPA & NY standard;
 1,200 ppm = immediate action if in surface soil (0 to 6")

- **BF 5-8:** Immediate closure necessary
- **BF 9:** Elevated levels not at surface, not immediate health risk; cleanup necessary but can stay in use until then
- **Other fields:** Long-term cleanup; some closures by Parks
- Although lead in some areas above screening level, levels are *consistent with urban background* and not an immediate health risk based on conservative screening level & usage





Lead Contamination in Soil

- Natural levels of lead in soil range between 50 parts per million (ppm) and 400 ppm. Leaded gasoline, smelting and refining activities have resulted in substantial increases in lead levels in the environment.
- Background in most urban areas for lead in soil is often well above 400 ppm.
- EPA's soil screening level, which is applied in cleanups, for lead in bare soil in play areas is 400 ppm.
- The soil screening level for lead represents a conservative estimate for a level that would be protective of public health in residential soils based on an analysis of young children's intensive exposure through directly ingesting the soil.

SIMPLE PRECAUTIONARY STEPS TO REDUCE YOUR LEAD EXPOSURE

- The following steps are recommended to reduce your potential exposure to lead contamination that may be present in urban soils:
 - Remove shoes at the door before entering your home to prevent tracking in any dirt that may be on your shoes. Clean the bottom of your shoes with a wet wipe or paper towel.
 - Wash your hands and face after visiting these ball fields and always before eating, drinking, or smoking.
 - Avoid digging into or disturbing soil below the surface of the fields.



Analysis of Soil Investigation Results



Ball Fields 5-8 + 9:
Elevated
contaminants
*related to Columbia
lead facility*

- EPA removal action (cleanup) required; NYC Parks completing under EPA oversight

All Other Fields:
Elevated detections
from historic fill/
urban background

- Cleanup as Parks Capital Project to same standards



Cleanup Process

NYC Parks conducting removal action (cleanup) at Ball Fields 5-9 under formal EPA oversight with July 2016 Enforcement Agreement

Work includes:

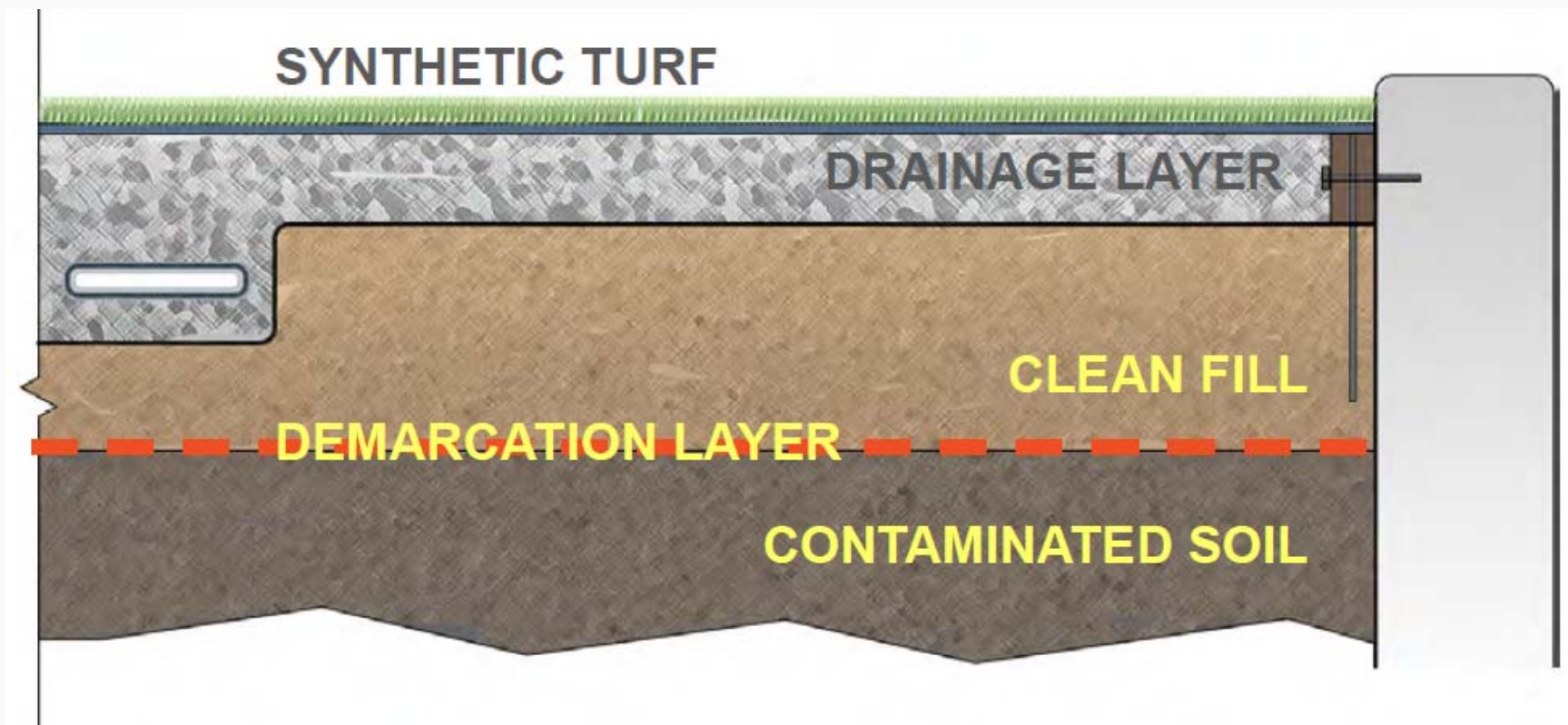
- Prohibit access to Ball Fields 5-8 until removal action is complete
- Posted signs to communicate closure of Ball Fields 5-8
- Maintain vegetative cover on Ball Fields 5-9 until removal action is complete
- Provide a 12-inch cover of clean material (soil, fill, etc.) to eliminate exposure to contaminants in soil
- Restore site to park usage after removal action is complete
- Establish long-term controls to prevent future exposure to any site-related contaminants left in place



Cleanup Approach of Ball Fields

12" barrier to contaminated soil left in place = capping with limited excavation

- Most of the trees will be removed and replaced





Expected Cleanup Timeline

Design/Engineering Plans

- Complete for BF 5-8
- Ongoing for BF 9

Construction Plan (On-going)

- Contract: write and transmit for review by NYC Parks, NYC Law and other NYC agencies
 - Contract out for bid
 - Award contract; submit for registration with NYC Comptroller
- **On-site Construction (12-18 months)**
 - Removal of all park features, grading, installation of all new features (curbs, fencing, benches, portions of sidewalk, fountains, lighting, utilities, turf, trees, ramps/stairs, bioswale, etc.)





Community Involvement

EPA COMMUNITY INVOLVEMENT PLAN

- Public document for the community that discusses:
 - Site history and background
 - Community issues and concerns
 - Community involvement action plan - methods for communicating with EPA
- Incorporates community concerns captured during EPA's interviews with community members & comments
- Comments/questions: Natalie Loney, EPA Community Involvement Coordinator: Loney.Natalie@epa.gov, 212-637-3639



COMMUNITY UPDATES

- Public meetings, periodic fact sheets, Mailing List (← email or call Natalie to be included on list)
- EPA website: <https://www.epa.gov/ny/columbia-smelting-refining-works-red-hook-brooklyn-new-york>
- NYC Parks websites:
 - Red Hook Recreation Area Remediation - overall: <https://www.nycgovparks.org/about/whats-happening/red-hook-park-remediation>
 - Ball Fields 5-8 Capital Projects Tracker: <https://www.nycgovparks.org/planning-and-building/capital-project-tracker/project/7192>
 - Ball Field 9 & Soccer Field 2 Capital Projects Tracker: <https://www.nycgovparks.org/planning-and-building/capital-project-tracker/project/8528>

INFORMATION REPOSITORY

- Red Hook Library, 7 Wolcott Street (at Dwight Street), Red Hook (phone: 718-935-0203)
- Contains technical record supporting cleanup decision/remedy selection (Administrative Record) and other documents (i.e., Community Involvement Plan)